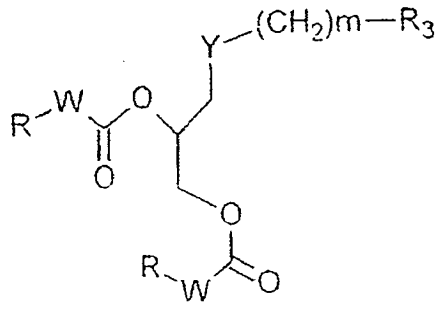
IN THE CLAIMS

Amendments to the Claims:

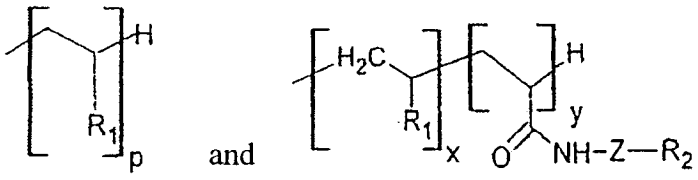
This listing of claims will replace all prior versions and listings of claims in the application.

23. (Previously presented) A compound of formula (III):



(III)

in which R_3 represents a group selected from the group consisting of:



(IV) and (V)

wherein:

Y represents a sulfur atom or an

-NH-CO-(CH_2)n-X group, X represents a sulfur atom or a -CH_2- group; n is an integer ranging from 0 to 10;

R represents a group selected from the group consisting of:

C_4-C_{24} hydrocarbon-based radicals; and C_4-C_{24} fluorinated hydrocarbon-based radicals; C_4-C_{24} thioalkyl radicals;

W represents an -NH- or -CH_2- group;

p represents an integer ranging from 1 to 50;

m is an integer ranging from 0 to 9, and, when X = CH_2, then $0 < m+n < 6$;

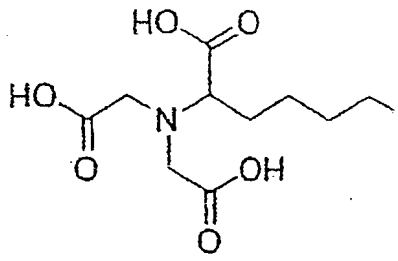
x represents an integer ranging from 1 to 30;

y represents 0 or an integer ranging from 1 to 10;

R_1 represents a hydrophilic group;

R_2 represents a recognition group having an affinity for a biological target;

Z is a spacer arm; Z is bound to R_2 by means of a bond which is selected from the group consisting of functions –O-CO-, -CO-NH-, -NH-CO-NH-, -NH-CO-O-, O-CO-O-, -O-, -CH=N-, -S- and by complexation of a nickel atom; Z is selected from the group consisting of a peptide chain, an Ω-amino acid, ethanolamine, 3-propanolamine and a diamine of formula -NH-$(CH_2)_{p'}$-NH-, in which p' represents an integer ranging from 2 to 6, or -Z-R_2 represents a group of the formula below:



24. (Previously presented) The compound of claim 23, wherein the group R is selected from the group consisting of:

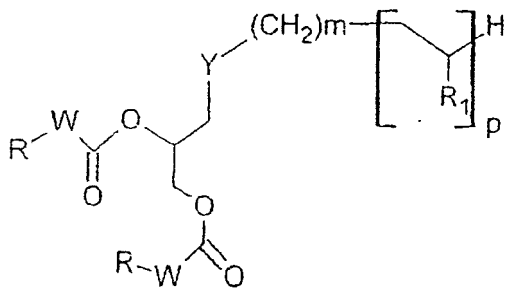
thiooctyl radical,

n-butyl, tert-butyl, isobutyl, n-pentyl, isopentyl, n-hexyl, n-heptyl, n-octyl,

n-nonyl, n-decyl, n-undecyl, n-dodecyl, n-tridecyl, n-tetradecyl, n-pentadecyl, n-hexadecyl, n-heptadecyl, n-octadecyl and the phytyl radical, $(CH_3[CH(CH_3)(CH_2)_3]_3CH(CH_3)CH_2CH_2)$,

fluorinated hydrocarbon-based radicals corresponding to the formula -$(CH_2)_t$-$(CF_2)_rF$, in which r and t represent two integers wherein $14 \geq r+t \geq 4$.

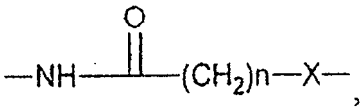
25. (Previously presented) The compound of claim 24, corresponding to formula (I):



(I)

in which:

Y represents a sulfur atom or a group



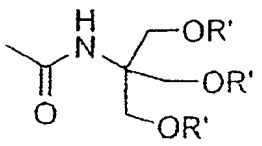
X being selected from the group consisting of S and CH_2 groups, n is an integer ranging from 0 to 10;

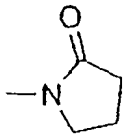
m is an integer ranging from 0 to 9; and, when X = CH_2, then $0 < m+n < 6$;

W represents an -NH- group or a -CH_2- group;

p represents an integer ranging from 1 to 50;

R_1 represents a group selected from the group consisting of:

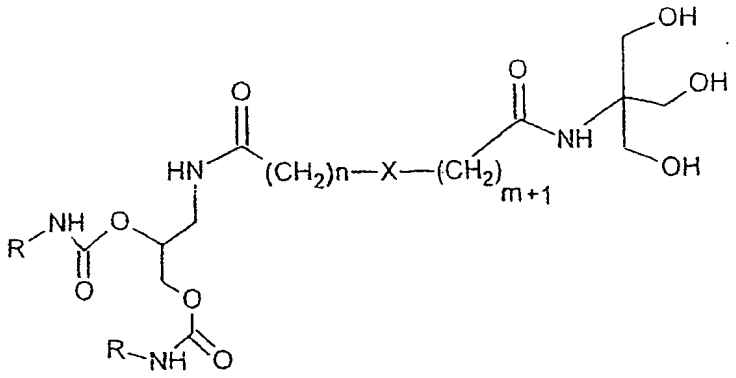




in which R' represents H or a hydrophilic group;

R represents a group selected from the group consisting of: C_4-C_{24} hydrocarbonbased radicals; C_4-C_{24} fluorinated hydrocarbon-based radicals; and C_4-C_{24} thioalkyl radicals.

26. (Previously presented) The compound of claim 25, having formula (IA):



(IA)

in which:

X represents a sulfur atom or a $-CH_2-$ group;

n is an integer ranging from 0 to 10;

m is an integer ranging from 0 to 9;

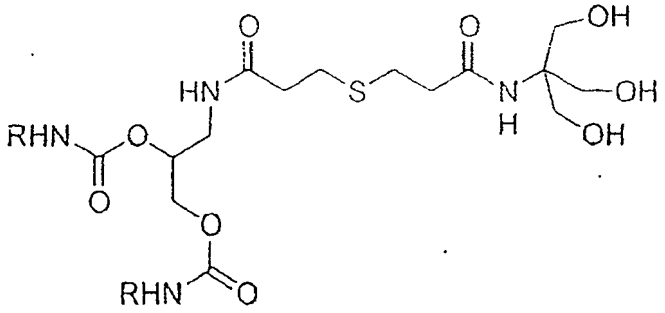
when $X = CH_2$, then $0 < m+n < 6$;

R represents a group selected from the group consisting of:

C_4-C_{24} hydrocarbon-based radicals; C_4-C_{24} fluorinated hydrocarbon-based radicals; and C_4-C_{24} thioalkyl radicals.

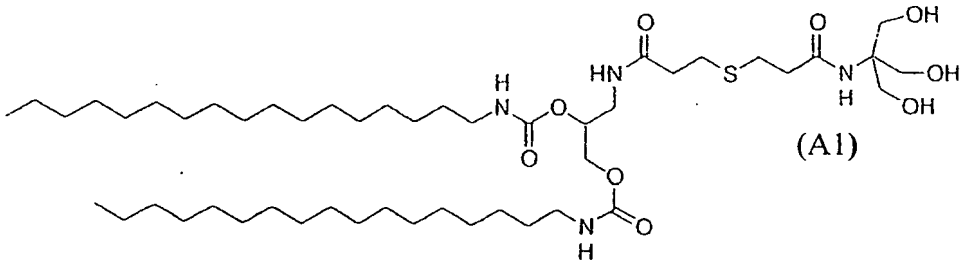
27. (Previously presented) The compound of claim 26, wherein R is selected such that (IA) has a phase transition temperature of greater than 37°C.

28. (Previously presented) The compound of claim 26, having formula A:



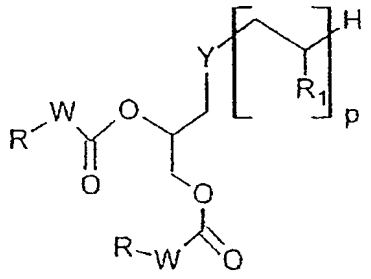
(A)

29. (Previously presented) The compound of claim 28, having formula A1:



(A1)

30. (Currently amended) The compound of claim 25, having formula (IB):



(IB)

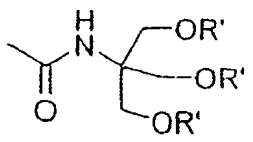
in which:

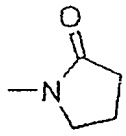
Y represents a sulfur atom or -NH-CO-CH_2CH_2S- group;

W represents an -NH- group or a -CH_2- group;

p represents an integer ranging from 1 to 50;

R_1 represents a group selected from the group consisting of:





in which R' represents H or a C_4-C_{24} polyhydroxylated hydrocarbon-based compound;

R represents a group selected from the group consisting of: C_4-C_{24} hydrocarbon-based radicals; C_4-C_{24} fluorinated

hydrocarbon-based radicals; C_4-C_{24} thioalkyl radicals.

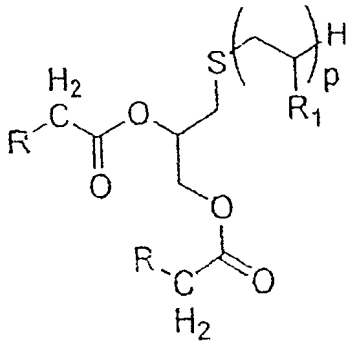
31. (Previously presented) The compound of claim 30, wherein R is selected such that (IB) has a critical micellar concentration of less than 10^{-5} M.

32. (Previously presented) The compound of claim 30, which satisfies one or more of the conditions below:

p represents an integer ranging from 1 to 5;

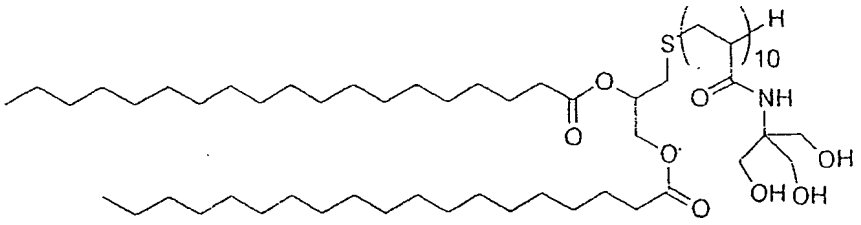
Y represents a sulfur atom, or both.

33. (Previously presented) The compound of claim 30, having formula C, in which p represents an integer ranging from 5 to 15:



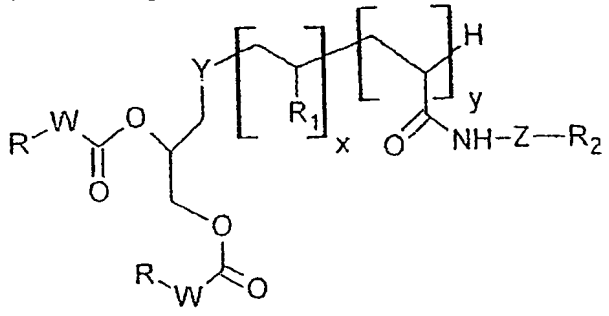
(C)

34. (Previously presented) The compound of claim 33, having formula C1:



(C1)

35. (Previously presented) The compound of claim 23, having formula (II):



(II)

in which:

Y represents a sulfur atom or the -NH-CO-(CH_2)n-X- group, in which X represents a sulfur atom or a -CH_2- group, n is an integer ranging from 0 to 10;

W represents an -NH- or -CH_2- group;

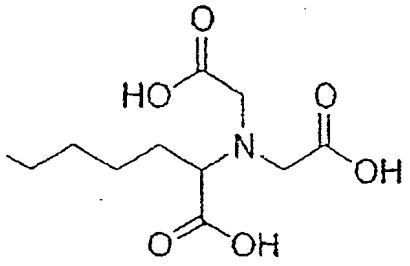
x represents an integer ranging from 1 to 30;

y represents 0 or an integer ranging from 1 to 10;

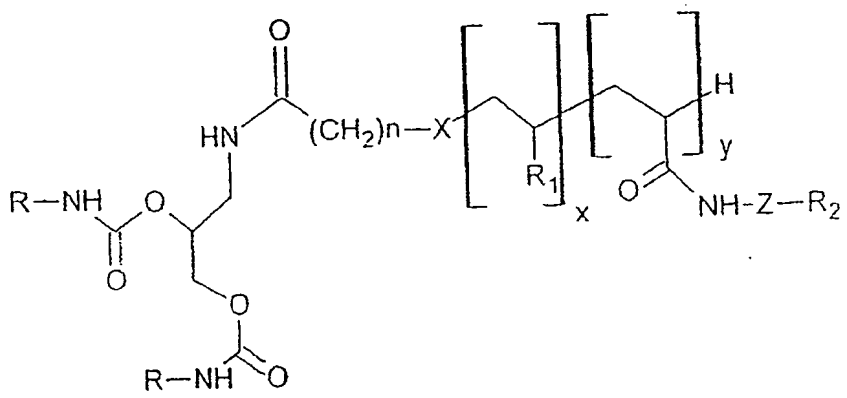
R_1 represents a hydrophilic group;

R_2 represents a recognition group having an affinity for a biological target;

Z is a spacer arm; Z is bound to R_2 by means of a bond which is selected from the group consisting of functions -O-CO-, -CO-NH-, -NH-CO-NH-, -NH-CO-O-, O-CO-O-, -O-, -CH=N- or -S- or by complexation of a nickel atom; Z is selected from the group consisting of a peptide chain, an Ω-amino acid, ethanolamine, 3-propanolamine and a diamine of formula -NH-$(CH_2)_p$-NH-, in which p' represents an integer ranging from 2 to 6, or -Z-R_2 represents a group of formula:



36. (Previously presented) The compound of claim 35, having formula (IIA):



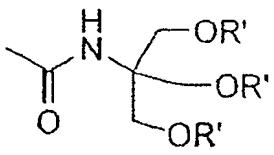
(IIA)

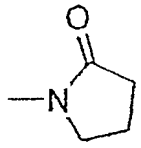
37. (Previously presented) The compound of claim 36, wherein one or more of the following conditions are met:

X=S,

n=2,

R_1 is selected from the group consisting of:





in which R' represents H or a C_4-C_{24} polyhydroxylated hydrocarbon-based compound,

R is selected from the group consisting of::

thiooctyl radical,

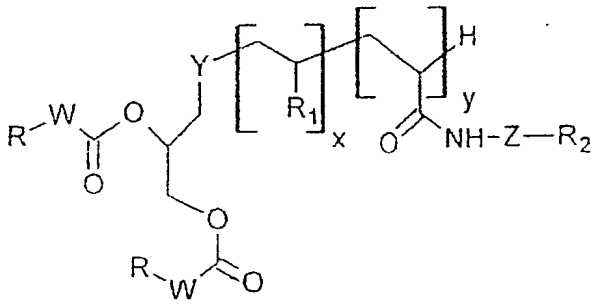
n-butyl, tert-butyl, isobutyl, n-pentyl, isopentyl, n-hexyl, n-heptyl, n-octyl, n-nonyl, 11-decyl, n-undecyl, n-dodecyl, n-tridecyl, n-tetradecyl, or the phytyl radical, $(CH_3[CH(CH_3)(CH_2)_3]_3CH(CH_3)CH_2CH_2)$,

fluorinated hydrocarbon-based radicals corresponding to the formula - $(CH_2)_t$-$(CF_2)_rF$, in which r and t represent two integers wherein $14 \geq r+t \geq 4$,

R_2 comprises antibodies, antibody fragments, or small effector molecules that allow interaction with cell surface receptors, antigens, sugars and peptides.

38. (Canceled)

39. (Previously presented) The compound of claim 35, having formula (IIB):



(IIB)

in which:

Y represents a sulfur atom or the -NH-CO-CH_2CH_2S- group.

40. (Previously presented) A nanoparticle comprising one or more compounds of formula (I) of claim 25 as a constituent of walls thereof.

41. (Previously presented) The nanoparticle of claim 40, which comprises from about 1 to 5% of one or more compounds of formula (11) of claim 35.

42. (Previously presented) The nanoparticle of claim 40, which further comprises an acrylic telomer or acrylic polymer in an inner aqueous cavity thereof.

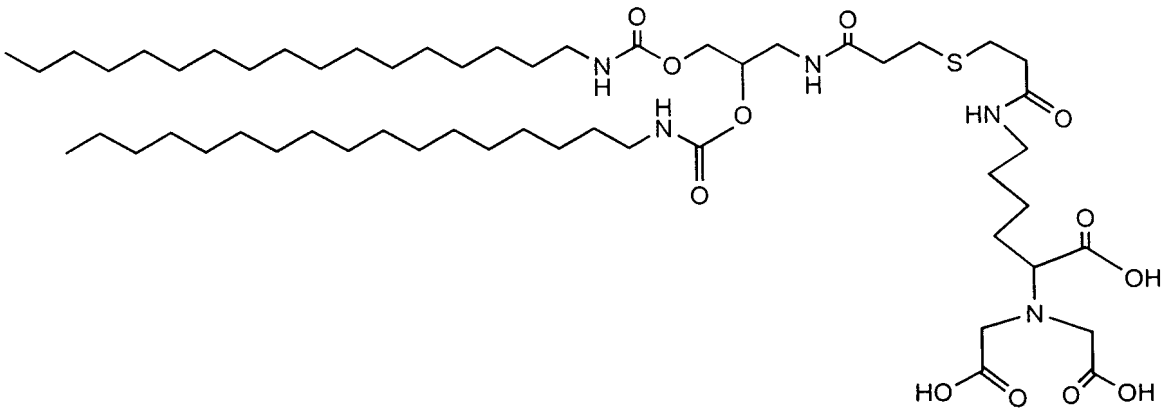
43. (Previously presented) A nanoparticle composition comprising nanoparticles of claim 40, and a compound comprising a therapeutic compound, diagnostic compound on a vaccine compound.

44. (Previously presented) The nanoparticle composition of claim 43, which is a therapeutic composition comprising nanoparticles and a therapeutic compound.

45. (Previously presented) The nanoparticle composition of claim 43, which is a diagnostic composition comprising nanoparticles and a diagnostic compound.

46. (Previously presented) The nanoparticle composition of claim 43, which is a vaccine composition comprising nanoparticles and a vaccine compound.

47. (New) The compound of claim 37, having the formula (F):



Formula F